

 **PALM INTRANET**Day : Monday
Date: 3/5/2007
Time: 07:51:47

Inventor Information for 10/603478

Inventor Name	City	State/Country
BOSKEY, ADELE L.	NORTH CALDWELL	NEW JERSEY
TUDOR, HELEN	NEW YORK	NEW YORK

Appln Info	Contents	Petition Info	Atty/Agent Info	Continuity/Reexam	Foreign
------------	----------	---------------	-----------------	-------------------	---------

Search Another: Application# or Patent#

PCT / / or PG PUBS #

Attorney Docket #

Bar Code #

To go back use Back button on your browser toolbar.

Back to [PALM](#) | [ASSIGNMENT](#) | [OASIS](#) | [Home page](#)



Web of Science®

Full Record**Record 1 of 1****Title:** ROLE OF CALCIUM-PHOSPHOLIPID-PHOSPHATE COMPLEXES IN TISSUE MINERALIZATION**Author(s):** BOSKEY AL**Source:** METABOLIC BONE DISEASE & RELATED RESEARCH 1 (2): 137-142
1978**Document Type:** Article**Language:** English**Cited References:** 30 **Times Cited:** 50**Addresses:** BOSKEY AL (reprint author), CORNELL UNIV, HOSP SPECIAL SURG,
COLL MED, NEW YORK, NY 10021 USA**Publisher:** PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD
LANE, KIDLINGTON, OXFORD, ENGLAND OX5 1GB**Subject Category:** Endocrinology & Metabolism**IDS Number:** GH536**ISSN:** 0221-8747**Record 1 of 1**

[Acceptable Use Policy](#)
Copyright © 2007 [The Thomson Corporation](#)


 Login:
 Register

[Home](#) [Browse](#) [Search](#) [My Settings](#) [Alerts](#) [Help](#)

Quick Search Title, abstract, keywords Author e.
 search tips Journal/book title Volume Issue Page

Metabolic Bone Disease and Related Research
 Volume 1, Issue 2 , 1978, Pages 137-142

doi:10.1016/0221-8747(78)90050-4 Cite or Link Using DOI
 Copyright © 1978 Published by Elsevier Science Inc.

The rote of calcium-phospholipid-phosphate complexes in tissue mineralization

A. L. Boskey

The Hospital For Special Surgery, Cornell University Medical College, New York, N.Y. 10021, USA

Available online 13 April 2004.

This Document

► Abstract

Actions

- Cited By
- Save as Citation Alert
- E-mail Article
- Export Citation
- Add to my Quick Links


Abstract

Calcium-phospholipid-phosphate complexes have been associated with the initiation of tissue mineralization. These complexes, which originally were probably membrane components have been characterized in rabbit and bovine tissues. The properties of these complexes, the factors controlling their formation, and their role in initiating calcification are discussed.

Résumé

Des complexes calcium-phospholipide-phosphate sont impliqués dans l'initiation de la minéralisation tissulaire. Ces complexes, qui, à l'origine étaient probablement des composants membranaires, ont été caractérisés dans les tissus bovins et de lapin. Les propriétés de ces complexes, les facteurs contrôlant leur formation et leur rôle dans l'initiation de la calcification sont discutés.

Author Keywords: Author Keywords: Calcification; Ca-phospholipid-PO₄ complexes; Hydroxyapatite; Mineralization mechanism


 Corresponding author. *Address for correspondence and reprints:* Dr. Adele L. Boskey,
The Hospital For Special Surgery, 535 East 70th Street, , New York, N.Y. 10021, , USA

Metabolic Bone Disease and Related Research
Volume 1, Issue 2 , 1978, Pages 137-142

This Document

► **Abstract**

Actions

- Cited By
- Save as Citation Alert
- E-mail Article
- Export Citation
-  Add to my Quick Links

[Home](#) [Browse](#) [Search](#) [My Settings](#) [Alerts](#) [Help](#)



[About ScienceDirect](#) | [Contact Us](#) | [Terms & Conditions](#) | [Privacy Policy](#)

Copyright © 2007 Elsevier B.V. All rights reserved. ScienceDirect® is a registered trademark of Elsevier B.V.

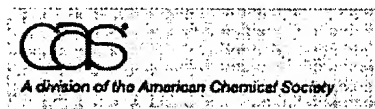
[Home](#) | [Help](#) | [Contact Us](#)

Welcome to CAS from Nature Publishing Group.

Explore with SciFinder

[SciFinder Customers](#)[SciFinder Scholar Customers](#)CAS indexed **3 chemical substances** from this document. There are **4 citing documents**.[Show me more!](#)[STN Customers](#)To learn about CAS Products
[Click Here!](#)[Back](#)[View Full Text Options](#)

Boskey, A. L.

Metabolic Bone Disease & Related Research (1978), 1(2),
137-42 CODEN: MBDRD6; ISSN: 0221-8747. English.

A discussion is given of the role of Ca-phospholipid-phosphate complexes in tissue mineralization, especially in the initiation of the process, as seen from expts. with rabbit and bovine tissues. The mechanism of hydroxylapatite formation by complexed lipids, a postulated in vivo calcification mechanism, and the properties of the complexes are discussed.

Copyright © 2007 American Chemical Society

[Use & Terms](#)

This is **G o o g l e's** cache of

<http://www.pccnaturalmarkets.com/health/Supp/Cartilage.htm> as retrieved on Jan 2, 2007 15:39:50 GMT.

G o o g l e's cache is the snapshot that we took of the page as we crawled the web.

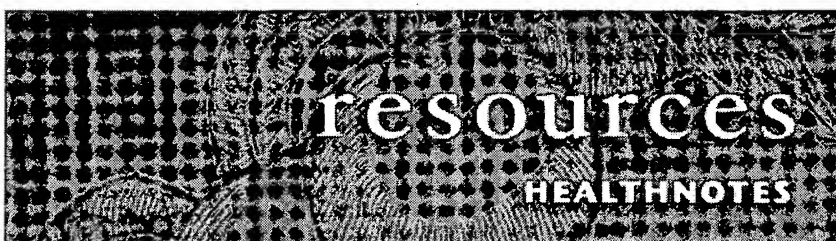
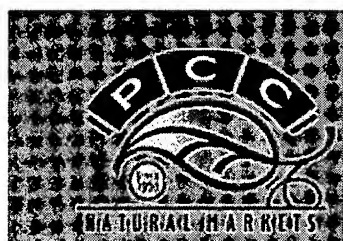
The page may have changed since that time. Click here for the **current page** without highlighting. This cached page may reference images which are no longer available. Click here for the **cached** only.

To link to or bookmark this page, use the following url: http://www.google.com/search?q=cache:ChY5MF_agiwJ:www.pccnaturalmarkets.com/health/Supp/Cartilage.htm+gelatin+collagen&hl=en&ct=clnk&cd=4

http://www.google.com/search?q=cache:ChY5MF_agiwJ:www.pccnaturalmarkets.com/health/Supp/Cartilage.htm+gelatin+collagen&hl=en&ct=clnk&cd=4

Google is neither affiliated with the authors of this page nor responsible for its content.

These search terms have been highlighted: **gelatin collagen**



PRODUCTS

LOCATIONS

COMMUNITY

ISSUES & ACTIONS

MEMBERSHIP

RESOURCES

SEARCH SITE

Printer-friendly version

healthnotes

Cartilage and Collagen

NEWSWIRE — a
weekly news service

Food Guide
Healthnotes Recipes
Healthy Eating
Special Diets

Health Concerns
• Health Centers

Vitamin & Nutritional
Supplements

Herbal Remedies
• by Botanical Name

Homeopathy
• by Remedy

Safetychecker by Drug
• by Herbal Remedy
• by Supplement

Holistic Health

Skip to:

- ▼ What it is
- ▼ Where found
- ▼ Helpful for
- ▼ Are you deficient?
- ▼ Amount to take
- ▼ Side effects & interactions
- ▼ References

What is it?

Cartilage, derived from shark, bovine (cow), and other animal sources, is a type of connective tissue composed of mucopolysaccharides (including **chondroitin sulfate**), protein substances, **calcium**, **sulfur**, and **collagen**. **Collagen** is one of the proteins found in most connective tissues, including cartilage, bone, and skin. **Gelatin** is a form of **collagen** commonly used in foods, and preliminary reports suggest that consuming **gelatin** can improve the structure and health of the hair and nails.^{1 2 3 4} **Collagen** hydrolysate is produced by enzymatically breaking down bovine **gelatin** to smaller protein fragments.

Where is it found?

Cartilage is derived from either sharks or cows. **Collagen** is derived from either cows or chickens.

Healthnotes site map

About Healthnotes Inc.

Cartilage and collagen have been used in connection with the following conditions (refer to the individual health concern for complete information):

Rating	Health Concerns
☆☆☆	Osteoarthritis
☆☆☆	Karposi's sarcoma (skin cancer) Prostate cancer (shark cartilage)
☆☆☆ Reliable and relatively consistent scientific data showing a substantial health benefit. ☆☆☆ Contradictory, insufficient, or preliminary studies suggesting a health benefit or minimal health benefit. ☆☆☆ For an herb, supported by traditional use but minimal or no scientific evidence. For a supplement, little scientific support and/or minimal health benefit.	

Who is likely to be deficient?

Since they are not essential nutrients, neither cartilage nor **collagen** are associated with deficiencies.

How much is usually taken?

Bovine cartilage is typically recommended at 3 grams three times per day. Shark cartilage is sometimes taken in much higher amounts (e.g., 60 to 100 grams per day orally or by enema). These amounts are based on animal and anecdotal evidence and their safety and efficacy have not been confirmed by controlled clinical trials. Not only is toxicity information on this amount of shark cartilage lacking, but the amount of calcium in this amount of shark cartilage exceeds the 2 to 2.5 grams per day that is commonly considered to be the upper limit of safe intake. Type II **collagen**, when used for its effects on the immune system in rheumatoid arthritis, is used in very small amounts, from 0.02 mg to 10 mg per day. **Gelatin** and **collagen** hydrolysate is recommended at 7 to 10 grams per day.

Are there any side effects or interactions?

Reports have suggested that some people should not use a cartilage supplement. This concern is based only on theory, not clinical evidence. This would include those people with **cardiovascular disease**, women who are planning to be or are **pregnant**, nursing mothers, anyone having or having had surgery within 30 days, and **athletes** training intensely. None of these concerns have been proven in clinical trials, however. Because shark cartilage contains **calcium**, people who ingest large amounts of shark cartilage (60 to 100 grams per day) may be consuming excessive amounts of this mineral. However, no cases of calcium toxicity resulting from the ingestion of shark cartilage have been reported.

While use of **gelatin**, **collagen** hydrolysate, or type II **collagen**

has not resulted in any reports of serious side effects, people with known sensitivities to chicken or beef should consult a doctor before using them.

At the time of writing, there were no well-known drug interactions with cartilage.

References

1. Scala J, Hollies N, Sucher KP. Effect of daily **gelatin** ingestion on human scalp hair. *Nutr Rep Int* 1976;13:579-92.
2. Morganti P, Randazzo SD. Nutrition and hair. *J Appl Cosmetol* 1984;2:41-9.
3. Tyson TL. The effect of **gelatin** on fragile finger nails. *Invest Dermatol* 1950;14:323-5.
4. Rosenberg SW. Further studies in the use of **gelatin** in the treatment of brittle nails. *Arch Dermatol* 1957;76:330-5.

healthnotes

Copyright © 2005 Healthnotes, Inc. All rights reserved.
www.healthnotes.com

Learn more about Healthnotes, the company.

Learn more about the authors of Healthnotes.

The information presented in Healthnotes is for informational purposes only. It is based on scientific studies (human, animal, or *in vitro*), clinical experience, or traditional usage as cited in each article. The results reported may not necessarily occur in all individuals. For many of the conditions discussed, treatment with prescription or over the counter medication is also available. Consult your doctor, practitioner, and/or pharmacist for any health problem and before using any supplements or before making any changes in prescribed medications. Information expires September 2006.

[Back to top](#)

[About PCC](#) | [Jobs](#) | [Contact Us](#) | [Privacy Policy](#) | [Site Map](#)

Copyright © 2001-2006 PCC Natural Markets. All rights reserved.